

ABSTRACT OF THE DISCLOSURE:

[0062] In input and output enabling power estimating apparatus and method for a secondary cell, an input enabling power (P_{in}) of the secondary cell is estimated on the basis of parameter estimated values (θ) and an open-circuit voltage (V_o), and an output enabling power (P_{out}) of the secondary cell is estimated on the basis of the parameter estimated values and the open-circuit voltage (V_o), the parameters are integrally estimated from at least one

$$\text{of equations (1) and (2): } V = \frac{B(s)}{A(s)} \cdot I + \frac{1}{C(s)} \cdot V_o \quad \dots (1),$$

$$\text{wherein } A(s) = \sum_{k=0}^n a_k \cdot s^k, \quad B(s) = \sum_{k=0}^n b_k \cdot s^k, \quad C(s) = \sum_{k=0}^n c_k \cdot s^k,$$

s denotes a Laplace transform operator, $A(s)$, $B(s)$, and $C(s)$ denote each poly-nominal of s (n denotes degrees), $a_1 \neq 0$, $b_1 \neq 0$, and $c_1 \neq 0$ and

$$V = \frac{B(s)}{A(s)} \cdot I + \frac{1}{A(s)} \cdot V_o \quad \dots (2), \quad \text{wherein } A(s) = \sum_{k=0}^n a_k \cdot s^k \quad \text{and}$$

$$B(s) = \sum_{k=0}^n b_k \cdot s^k.$$